

What is Claimed is:

Sub A1
1. A rotary deflector wherein a mass member is attached to a non-rotary section of a driving motor for rotating a polygon mirror.

2. The rotary deflector according to Claim 1, wherein the non-rotary section is a stationary shaft located at the center of rotation of the driving motor and the mass member is attached to the stationary shaft.

3. The rotary deflector according to Claim 2, wherein the center of gravity of the mass member is located almost at the center of the stationary shaft.

4. The rotary deflector according to Claim 2, wherein the mass member is a plate-like member and is symmetrical about the center of gravity.

5. The rotary deflector according to Claim 2, wherein the mass member of a size capable of reducing vibration within the range of the number of rotation of the driving motor is attached.

6. The rotary deflector according to Claim 5, wherein the weight of the mass member is 5 g or more.

7. The rotary deflector according to Claim 2, further comprising:
an engaging section formed at the upper part of the stationary shaft;
an engaged section which is formed at the center of gravity of the mass member and which engages with the engaging section; and
a fixing unit that fixes the engaged section and the engaging section.

Fig. 30
8. The rotary deflector according to Claim 1, wherein the mass member is formed integrally with the stationary shaft.

Sub A2
9. An optical scanning unit comprising:
a rotary deflector, wherein a mass member is attached to a non-rotary section of a driving motor for rotating a polygon mirror.

Fig. 15

10. The optical scanning unit according to Claim 9, further comprising:
a stopper that blocks the mass member from rotating a predetermined number of rotation or more is provided within a housing for storing the rotary deflector.

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11. The optical scanning unit according to Claim 10, further comprising:
an elastic member which contacts with the mass member and blocks it from rotating within the housing for storing the rotary deflector.

Sub
A3

12. An image forming apparatus comprising:
an optical scanning unit comprising a rotary deflector in which a mass member is attached to a non-rotary section of a driving motor for rotating a polygon mirror.

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